

The official News Letter of the AJM Environmental Services Group of Companies

Integral Energy award Environmental Improvement Contract to AJM

Integral Energy is one of Australia's leading electricity retailers and distributors, serving over 1.8 million people in households and businesses across a network franchise area covering Sydney's greater west, the Blue Mountains, the Illawarra and the Southern Highlands of NSW.

Integral Energy has a team of dedicated environmental staff who look after a range of issues, including compliance with environmental regulations.

In recent years, Integral Energy has invested a large amount of capital in improving the environmental performance of its network assets. A major component of this investment is to reduce the risk of oil escaping to the environment.

Oil is used in Integral Energy's transformers as an essential insulating fluid, however if a transformer fails, there is a risk of this oil leaking and potentially leading to environmental pollution.

Integral Energy has been proactive in this area with a bund installation program currently well underway in order to capture any spills or leaks that may occur. However, where there are bunds, there are also

storm water management issues as well as OHS issues arising from water collection within the bunds.

To address this issue, Integral Energy recently awarded a contract to AJM for the supply and installation of EnviroSEP systems in each of its new and existing bunds.

The AJM EnviroSEP is a specially designed unit for the effective treatment of storm water collected in bunds. It not only removes traces of oil to allow discharge into the switch yard in compliance with EPA regulations but is also fitted with features that will shut the system down in the event of a major spill. The EnviroSEP operates fully automatically, always maintains a dry bund and comes with remote operating facilities.

AJM will commence installing EnviroSEP units in March 2002.

The AJM EnviroSEP is ideal for electricity and oil companies and other industrial sectors that store oil or fuel on site.

A comprehensive new brochure entitled "Management of Storm Water from Bunded Areas" is now available.



Top view of an AJM EnviroSEP in a transformer bund

Also inside:

Case study on waste water treatment plant for Freight Corp, important information on bunding, some more salesmen stories which once again are actually true plus all the usual back page stuff including employee of the month photographs.....



Many businesses store chemicals, many of which are defined as class 8 corrosive. As most treatment plants designed by AJM use such chemicals, it is our obligation to understand the laws governing their storage and to assist companies by providing information or equipment to ensure that their storage facilities are fully compliant in terms of OH&S and environmental regulations.

Technical Feature Corrosive 8 Chemical Storage

This is the first in a series of articles on the often-neglected, storage of class 8 corrosive chemicals and is intended as an introduction to the requirements surrounding storage of these chemicals.

In this issue we will start to deal with the rules, regulations and authorities that control the bulk storage of corrosive 8 liquid chemicals.

Continued on page 2.....

Liquidity

New Product Profile Chemical Bunds

AJM have developed the bulky bin bund. We are still trying to come up with a suitable name for this unit so if anyone has any good ideas there may be prize involved.

This unit is designed specifically to hold IBC's or bulky bins commonly used to store chemicals used in water and waste water treatment processes. The bunds are normally fabricated in corrosion resistant derekane fiberglass but can be manufactured in stainless steel if necessary allowing use over a wide range of industrial chemicals.

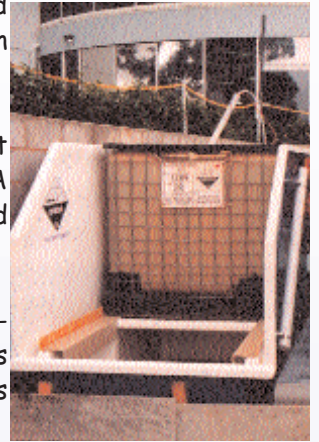
Once the bund is installed, removal and loading of the bulky bin is a simple exercise requiring a forklift. Convenient

rails from part of the bund structure to allow the bulky bin to be pushed into location.

Priced at under \$5000, the cost is considerably less than EPA fines that may be imposed should a bulky bin leak.

The bund is designed to comply with Australian Standards for the storage of hazardous chemicals. (see article)

The standard bund is supplied with signage and as a stand alone unit or as a complete package including dosing pumps, suction wands, low level sensors and safety showers. AJM also supply bunds suitable for 44 gallon drums and design and construct bulk storage containment facilities.



Recent Case Study Freight Corp - Werris Creek

AJM recently ventured into the land of boot scooting and golden guitars with an effluent treatment project for Freight Rail Corporation (FreightCorp) at their Werris Creek (near Tamworth) Locomotive Maintenance Centre.

As a diesel locomotive maintenance centre servicing the greater part of NSW and southern Queensland, the Werris Creek site has come a long way from the bad old days when the effluent collection pond was "treated" occasionally with a well placed match. However, with the last major effluent treatment upgrades being some 20 years ago, AJM was called in to review the site and provide the required improvements to meet FreightCorp's environmental and OH&S needs.

The site audit turned up requirements for control and re-routing of some contaminated stormwater, repair of the first flush system, and a major re-work and automation of the existing treatment plant which was totally manual and potentially hazardous. Design of the upgraded systems took particular attention to OH&S issues of handling and chemical safety. The site also had its share of unique chemical bund hazards. AJM is not aware of an Australian Standard for very angry snakes trapped in a bund, though unlike earth worms, a snake does not continue to survive as two halves. Frogs were another particular design issue. While the average frog is a little too soft to bother the average centrifugal pump, it is amazing how long a

frog can live in an oily well or freshly blended polymer. Numerous rescues were recorded.

The effluent from the maintenance depot can be extremely variable in volume and strength, so along with some other site constraints, it was decided to remain with the existing batch system. AJM provided full PLC automation of the twin 15,000 litre batch system, including operator interface screen.



This included automatic collection pit oil skimming; replacement of all chemical, dosing and control systems; installation of chemical bunding to Australian Standards; new treated water and sludge discharge systems; and one cup on a pole for frog retrieval. Snake control device (sharpened shovel) was pre-existing.

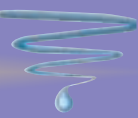
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The term "bulk" is open to interpretation, but quoting from AS3780-1994 "in liquid or paste form and are kept in a container having a capacity exceeding 250L, ie. in a tank"

Basically the following standards and authorities in Australia cover the storage of corrosive 8 chemicals and persons designing, building and operating such facilities should be familiar with their requirements:

AS3780-1994 "The storage and handling of corrosive substances" - This standard is comprehensive and generally covers the majority of requirements of the following authorities. It is recommended that this standard be used as the starting point for any design, or further reading.

Environmental Protection Authority - The EPA publishes a technical bulletin titled "Bunding and spill management", which covers both the bunding and disposal of any collected material within the bunds. This bulletin can be downloaded from: <http://www.epa.nsw.gov.au/mao/bundingspill.htm>.

State WorkCover Authorities - Most state WorkCover authorities have a separate Dangerous Goods department whose responsibilities relate to policing of the "Dangerous Goods Act 1997". In some states WorkCover authorities also needs to approve any bulk corrosive 8 chemical storage facility as part of the HAZCHEM system. This approval includes inspection and approval by WorkCover accredited consultants.

Local Council - As with any building works, local councils often require a building application, and on occasion a development application be submitted for bulk chemical storage facilities.

Local Water Authorities - many of these organisations require information on the volumes and types of chemicals stored on site as part of their trade waste licensing system. This is to insure that the stored materials cannot make their way into the sewage system.



Bulk hydrochloric acid store for BHP in Port Kembla

Chemical Delivery Companies - Most chemical delivery companies/contractors have their own set of requirements/guidelines that often exceed AS3780-1994. These include areas and bunding for the delivery tankers, locations of safety equipment, types of hose connections and fixed power supplies for the tanker pump units. Most of these companies will also want to inspect and sign-off the storage facility before the first delivery can take place.

HAZCHEM - This is a system whereby the bulk chemical storage facilities type and location on site are registered. This information is accessible by local fire brigades etc. so that in the event of a fire the attending brigades know the potential hazard and its location.

AJM has extensive experience in the design and installation of corrosive 8 liquid chemical storage facilities. Recent installations include both caustic and acid bunds for FreightCorp and a 13,000L bulk hydrochloric acid store for BHP in Port Kembla.

Another of those short, embarrassing and true stories

Well, we do deal with waste water!

Imagine the following scene:

A pipe under pressure and filled with really greasy, rotten, smelly black Soya food sludge that's quite a few days old and has been sitting in the sun.

It is commissioning time on site, 3.30pm on a very hot day, the site crew are tired and tempers are starting to fray.

Our salesman arrives, from his air conditioned office, out of his air conditioned car, all dressed in his usual finery of course. The purpose of his visit? To receive a pat on the back from the client for a plant he has not built! (not an unusual practice for our salesman)

There is a sludge pump that is not pumping (it did a couple of days ago when the site crew tested it). Hmmm unusual.

The salesman volunteers to "have a quick look at the pump" (because he knows he can fix it better than the site crew). "It is probably not primed" he says.

A clear instruction is given from our site engineer to the salesman to remove the plug on the pump suction to check.

A small bang, and 50 litres of the greasy, rotten, smelly black Soya food sludge sprays, at pressure, directly at the salesman from close proximity and covering him from head to toe.

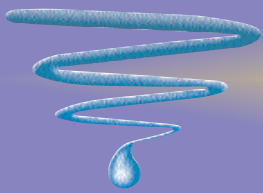
One site engineer, 2 plumbers, 1 electrician are found rolling around on the ground in hysterics, trying desperately not to wet their pants.

Moral of the story:

".....Sometimes it is good to let the salesman help out on site just a bit.....".

Haha, plenty more stories to come!





What's happened this month?

Traditionally January and February are quiet months of the year. A chance to put the feet up, watch the cricket, and do all those things you have been wanting to do for ages. AJM has however been very busy. Securing a number of contracts for servicing and sampling effluent treatment plants, building new ones for McConnell Dowell and Freight Corp, starting on a large project for Australian Defense Industry plus continued work for Integral Energy, there has been little time left. We have however managed to produce a new set of brochures including bund management, chemical handling, and one on the AJM AutoBATCH to compliment our existing range, so if you would like one drop, us a line. We will also be organising an AJM golf day in the near future so if you are hacker and wish to play, send us an email.



"Ha ha, these bloody engineers think this is funny huh! Making fun of salesmen. Well we have a right to reply, get our own back.....and the editor has promised us we will get the chance in the next issue. Comments from other salesmen are more than welcome."

The interest in advertising in **LIQUIDITY** has been tremendous since we reduced the fee from quite a lot of money really to just a case of wine for the editor (who coincidentally denies that the deduction in advertising fees, is not just because he doesn't have to write so much). Any wine will do by the way, but the more expensive it is, the larger the ad.

The circulation of this newsletter is ever increasing and is expected to be in six figures in the not too distant future (measured on a evolutionary scale at least) so long term bookings are strongly advisable. We will also consider interesting or humorous stories and editorials. Please contact Andrew for further information. Deadline, as always, is quite soon.

ADVERTISING OPPORTUNITIES

A J M Queensland Update

AJM Environmental Services (QLD) has started 2002 successfully. Continuing our work with electricity companies, AJM won a competitive tender to supply and install an oil separation system in Brisbane to treat storm water collected in transformer oil tank bunds. AJM (QLD) also won a contract to supply a filter press in New Caledonia, the AJM Groups first major export project. Naturally fights are starting to break out in the AJM offices for the job of supervising the installation. Word has it that the salesman is looking good for the job as he claims he needs some site experience and in New Caledonia there will be no one to watch over him so he can get away with anything. We will let you know!



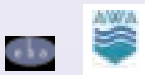
Employee of the month
Bradley
Installation and Service Engineer

A day in life of Brad coming in next issue!

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A J M at Enviro 2002

The Enviro2002 exhibition is rapidly approaching and we would like to take this opportunity to offer our personal invitation to visit. It is at Melbourne Exhibition and Convention Centre from 8-11 April. AJM can be found at Booth # A072, so make sure that you drop by so you can see, for real, who these people are who keep sending you newsletters. This year we will be displaying "The Wedgy" which can be a lot of fun(?) and also the transparent EnviroDAF system which for anyone who wants to know how a dissolved air flotation system really works is essential viewing. Jonathan also wants to show off his handywork. See you there!



If you are reading someone else's copy of this newsletter and would like one just for yourself, let us know and we will add you to our mailing list. On the other hand if you don't want to receive future copies of LIQUIDITY, email us your contact details and we will delete you from our list. Thank you.

Coming in the next issue

Accidents, mishaps and stories from a recent promotional trip to the Sunshine Coast and Brisbane. How many times can you damage a car in a day....?